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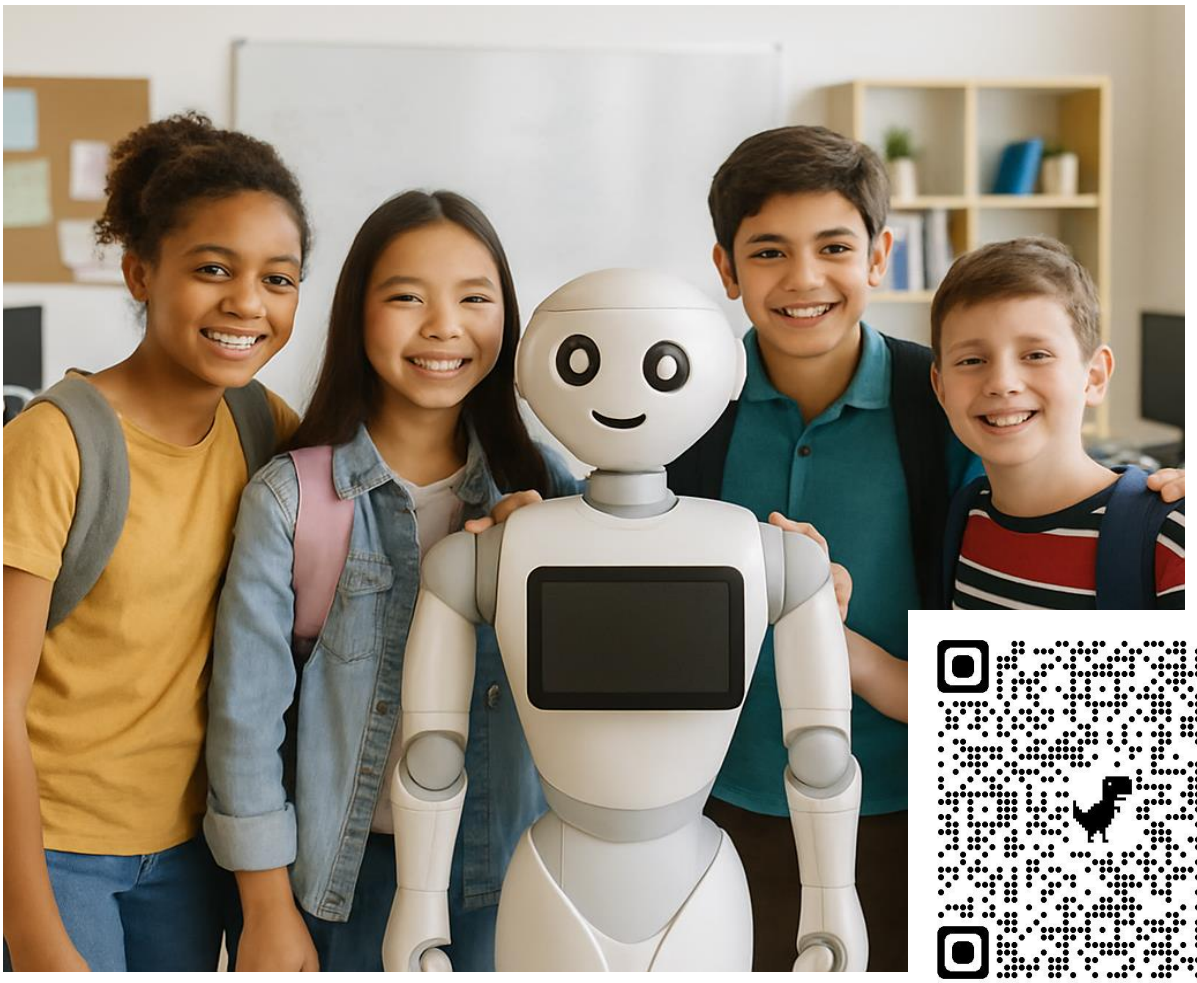
Computer World

Primary 4 _ Second Term 2026



Mr/ Ebrahim Elkomy

Tel_No _ 01096169792

Primary 4 Content Second Term 2025/2026

🌐 Unit 3: Digital Citizenship in an Online World

- Lesson 1: Technological Applications in Our Lives
- Lesson 2: Digital Citizenship (My Rights and Responsibilities Online)
- Lesson 3: Online Communication Methods (Synchronous vs. Asynchronous)
- Lesson 4: Digital Communication Tools
- Lesson 5: My Tools for Online Learning
- Lesson 6: Digital Research Skills (Planning and Evaluating Sources)

💻 Unit 4: Advanced Digital Skills

- Lesson 1: Solving Digital Problems
- Lesson 2: Presenting Information
- Lesson 3: Algorithms
- Lesson 4: Programming (Computer Language and Game Design)
- Lesson 5: Exploring Scratch
- Lesson 6: Graphic Arts (Creating and Editing Digital Images)

Lesson 1: Technological Applications in Our Lives

Have you ever thought about how technology helps us accomplish so many things in our lives faster and easier? For example: Shopping 🛒, communicating with relatives 📱, or learning 💡.

🌐 Digital Tools

Digital tools are applications that help people access the services they need easily. These tools are beneficial to us and the community around us, making many tasks simpler than we ever imagined.

🎨 Creative people use different types of digital tools to:

- Innovate practical solutions that help people in their daily lives.
- Design useful applications and websites.
- Make helpful information easily accessible to everyone.

⭐ Benefits of Digital Tools

1. Easier Access to Services: People can use apps to pay bills and receive assistance from relevant authorities easily.
2. Simplified Travel and Entertainment ✈🎟: We can book tickets online with a single click, such as:
    - Plane tickets.
    - Train tickets.
    - Tickets for museums and historical sites.
3. Improved Communication 🗣: Technology helps people communicate better, which helps build strong relationships.
4. Problem Solving 💡: Digital tools contribute to finding quick and effective solutions to daily problems.

🎯 The Main Idea

When we use technology in a positive way, it helps us become more successful in our lives and helps societies develop and progress.

Model 1

I. True or False (8 Questions)

1. Digital tools make it harder for people to access government services. ( )
2. Booking a train ticket online is a form of digital services. ( )
3. Technology should only be used for shopping and gaming. ( )
4. Digital tools help creative people find solutions to daily problems. ( )
5. Using technology positively leads to the progress of society. ( )
6. You must travel to a museum to book an entry ticket; it cannot be done online. ( )
7. Digital applications can be used to pay monthly electricity bills. ( )
8. Technology has no impact on building better relationships between people. ( )

II. Complete the sentences (7 Questions)

1. Digital tools are applications that help people get the _____ they need easily. (A) Problems (B) Services (C) Hardships (D) Tickets
2. Using technology in a positive way helps our society to _____. (A) Stop (B) Progress (C) Fail (D) Disappear
3. Creative people design apps to provide practical _____ for daily life. (A) Solutions (B) Obstacles (C) Games (D) Problems
4. Technology improves _____ between people, helping them stay connected. (A) Distance (B) Communication (C) Isolation (D) Travel
5. Online booking for flights is one of the digital _____ available today. (A) Problems (B) Tickets (C) Books (D) Solutions
6. When we use technology effectively, we find new _____ to old problems. (A) Solutions (B) Apps (C) Bills (D) Obstacles
7. Improving _____ helps in building stronger social relationships. (A) Travel (B) Bills (C) Communication (D) Coding

Model 2

I. True or False (8 Questions)

1. Digital tools help in making information accessible to everyone. ( )
2. Online shopping is considered a digital application in our lives. ( )
3. Only experts can benefit from digital tools in their daily routines. ( )
4. Technology helps us accomplish tasks faster than traditional methods. ( )
5. Digital tools are only used for entertainment and fun. ( )
6. Designing useful websites is a way creative people use technology. ( )
7. Paying bills via mobile apps is considered a waste of time. ( )
8. Digital tools provide quick and effective solutions for problems. ( )

II. Complete the sentences (7 Questions)

1. Digital tools help us obtain information and services _____.
   (A) Hardly (B) Easily (C) Slowly (D) Never
2. Using technology effectively makes us more _____ in our lives.
   (A) Successful (B) Lazy (C) Sad (D) Tired
3. Creative individuals use their skills to design useful _____.
   (A) Problems (B) Websites (C) Bills (D) Obstacles
4. Digital tools are _____ that simplify our daily tasks.
   (A) Applications (B) Books (C) Papers (D) People
5. Learning online is easier when we use the right digital _____.
   (A) Tools (B) Toys (C) Trains (D) Bills
6. We can reach any information we need _____ through digital platforms. (A) Slowly (B) Easily (C) Rarely (D) Locally
7. Designing _____ is a way to make helpful information available to all.
   (A) Tickets (B) Websites (C) Problems (D) Bills

Model 3

I. True or False (8 Questions)

1. Communication with relatives has become easier thanks to technology. ( )
2. Digital tools are only beneficial to individuals, not the community. ( )
3. We can book plane tickets with a single click using digital tools. ( )
4. Technology hinders the development of modern societies. ( )
5. Practical solutions can be innovated using various digital tools. ( )
6. Digital tools play a major role in solving daily problems. ( )
7. Accessing information online is more difficult than using paper books. ( )
8. Using technology in a negative way leads to progress. ( )

II. Complete the sentences (7 Questions)

1. We can use the internet to book _____ for museums and historical sites. (A) Problems (B) Apps (C) Tickets (D) Solutions
2. Digital _____ are very useful for us and the community around us. (A) Tools (B) Walls (C) Games (D) Cars
3. Creative people aim to provide _____ solutions for daily life. (A) Difficult (B) Practical (C) Slow (D) Useless
4. Digital tools make useful _____ available to everyone. (A) Information (B) Noise (C) Dust (D) Problems
5. Booking train _____ online is faster than going to the station. (A) Apps (B) Tickets (C) Sites (D) Tools
6. To solve a problem, we can use digital _____ to find help. (A) Tools (B) Blocks (C) Obstacles (D) Games
7. Making _____ accessible helps people learn and grow. (A) Information (B) Problems (C) Walls (D) Bills

Lesson 2: Digital Citizenship (My Rights and Responsibilities Online)

Now that you are using technology and the internet for your studies and play, you are not just an ordinary user; you are a Digital Citizen.

□ What is Digital Citizenship?

- Digital Citizenship is the ability to use technology in an ethical, responsible, and safe manner.
- It means knowing your rights and your duties (responsibilities) online.

📄□ Digital Footprint

- A Digital Footprint is a record of your activities.
- It includes everything you: Do online, Share, or what others share about you.
- Examples: Websites you visit, photos you post, and comments you write.
- Your digital footprint must be positive.
- Therefore, you must not share: your information or others' information in an unsafe or irresponsible way.

⚖️□ Rights and Responsibilities of a Digital Citizen You have rights and responsibilities, just like you do at school and home.

✓ First: Rights

1. Protection: No one has the right to copy your digital footprint or share your videos/photos without your permission.
2. Positive Expression: You have the right to express your opinions and ideas (with help from family/teachers) in a way that does not offend others.

3. Safe Access: You have the right to use the internet safely when you need it, while committing to respecting the law.

🛡 Second: Responsibilities

1. Respecting Intellectual Property: You must not copy or steal someone else's content (like a story or song) to share or sell it; this is called Piracy.
2. Positive Interaction: Always be polite to everyone online and express your views with positive ideas.
3. Wise Usage: Make sure what you watch is useful, and balance your online time with time spent with family and friends.

⊘ Piracy: The illegal sharing or selling of digital content.

🔐 Safe Usage Rules:

1. Use strong passwords.
2. Document references and information, and do not believe everything you find.
3. Monitor the time you spend online.

Model 1

I. True (T) or False (F):

1. Digital citizenship means using technology in an ethical and safe way. ( )
2. A digital footprint only includes the photos you post yourself. ( )
3. It is your right to share your friend's photo without asking them. ( )
4. Piracy is the legal sharing of digital content. ( )
5. You have the right to express your opinions positively online. ( )
6. You should spend all your free time on the internet. ( )
7. Strong passwords are part of safe internet usage rules. ( )
8. Digital citizenship involves knowing both rights and responsibilities. ( )

II. Complete the following:

1. A _____ is a record of everything you do and share online.
   (A) Password (B) Digital Footprint (C) Piracy (D) Website
2. Copying someone else's story to sell it is called _____.
   (A) Citizenship (B) Rights (C) Piracy (D) Interaction
3. You must _____ the time you spend online to stay healthy.
   (A) Increase (B) Monitor (C) Ignore (D) Waste
4. When using information from a website, you should _____ your sources. (A) Hide (B) Delete (C) Document (D) Steal
5. Being _____ with others is a key responsibility of a digital citizen. (A) Impolite (B) Polite (C) Angry (D) Silent
6. Digital citizenship helps you use technology _____.
   (A) Irresponsibly (B) Safely (C) Dangerously (D) Rarely
7. You have the right to _____ when you need to use the internet.

(A) Safe Access (B) Steal Content (C) Bully Others (D) Share Secrets

Model 2

I. True (T) or False (F):

1. Your digital footprint should always be positive. ( )
2. Respecting intellectual property means not stealing others' work. ( )
3. You should believe everything you read on the internet. ( )
4. Digital citizens have both rights and responsibilities. ( )
5. It is okay to share your personal address with anyone online. ( )
6. You have the right to be protected from someone copying your footprint. ( )
7. Positive interaction means being rude to people you disagree with. ( )
8. Balancing online and offline time is a sign of wise usage. ( )

II. Complete the following:

1. Digital citizenship is the ability to use technology _____.
   (A) Randomly (B) Ethically (C) Negatively (D) Only for games
2. Your digital footprint includes the _____ you visit.
   (A) Museums (B) Websites (C) Parks (D) Schools
3. One of your _____ is to respect the law while using the internet.
   (A) Rights (B) Hobbies (C) Responsibilities (D) Dreams
4. You should use _____ passwords to protect your accounts.
   (A) Short (B) Easy (C) Strong (D) No
5. Sharing a video of someone without their permission violates their _.
   (A) Responsibilities (B) Rights (C) Piracy (D) Duties
6. _____ is the illegal trading of digital content.
   (A) Protection (B) Interaction (C) Piracy (D) Footprint
7. Expressing ideas in a way that does not hurt others is _____.
   (A) Positive Expression (B) Piracy (C) Footprint (D) Access

Model 3

I. True (T) or False (F):

1. Piracy is an ethical way to share music and movies. ( )
2. You can ask your teacher or family for help when expressing your views online. ( )
3. Your digital footprint includes what other people post about you. ( )
4. Using the internet safely is a responsibility, not a right. ( )
5. You must document your references to ensure information is credible. ( )
6. A digital citizen uses technology to harm others. ( )
7. You should not share your private information in an unsafe way. ( )
8. Monitoring your time online is part of wise usage. ( )

II. Complete the following:

1. A digital citizen is someone who uses technology _____.
   (A) For bullying (B) Responsibly (C) To steal (D) Rarely
2. Everything you do on the internet leaves a _____.
   (A) Paper (B) Digital Footprint (C) Song (D) Bill
3. You have the right to _____ from having your content stolen.
   (A) Piracy (B) Protection (C) Neglect (D) Fear
4. Wise usage means balancing online time with _____.
   (A) Gaming (B) Family time (C) More internet (D) Sleeping only
5. _____ references helps in verifying the truth of the information.
   (A) Deleting (B) Documenting (C) Ignoring (D) Copying
6. To be a good digital citizen, you must have _____ interaction with others. (A) Positive (B) Negative (C) No (D) Secret
7. Stealing an online song to sell it is an act of _____.
   (A) Citizenship (B) Respect (C) Piracy (D) Right

Lesson 3: Online Communication Methods (Synchronous vs. Asynchronous)

Have you ever thought about the different ways you communicate with your friends or teachers using technology? There are two main ways to communicate online, and both are very useful:

🕘 *First: Synchronous Communication*

- Definition: Communication that happens in real-time, requiring an immediate response.
- It is like talking face-to-face but over the internet.
- Examples: Talking on the phone or a live discussion with a classmate.

🛠️ Synchronous Communication Tools:

1. Video Chats: Allow direct communication with one or more people where you see and hear each other instantly.
   - *Tools needed:* Device with a camera and microphone + an app or software.
2. Instant Messaging: Enables you to send text messages, images, or videos that arrive instantly.
   - *Tools needed:* Instant messaging software or a mobile app.
3. Chat Rooms: Allow group communication via text about a specific topic with fast responses.
   - *Tools needed:* An internet browser (like Google Chrome) or a mobile app.

🕘 *Second: Asynchronous Communication*

- Definition: Communication that does not require an immediate response.

- You send your message, and the other person can read and reply at any later time.
- Information is transferred without needing both parties to be online at the same time.

🛠️ Asynchronous Communication Tool: Email

- Used for sending formal or long messages, such as asking a teacher for help or contacting an official.
    - *Tools needed:* An internet browser to access the email website or an email app.

📌 *When to use each type?*

1. Use Synchronous Communication when:

- Discussing a quick school topic.
- An immediate answer is needed.
- Exchanging simple information and files quickly.

2. Use Asynchronous Communication when:

- Sending a formal message.
- An immediate response is not necessary.
- Sending important large files or school assignments.

Model 1

I. True (T) or False (F):

1. Synchronous communication requires an immediate response. ( )
2. Email is the best tool for an urgent live video discussion. ( )
3. Asynchronous communication happens in real-time. ( )
4. Video chats allow you to see and hear people instantly. ( )
5. Instant messaging is a form of asynchronous communication. ( )
6. Chat rooms usually focus on a specific topic for a group. ( )
7. You should use email when you need a quick answer to a simple question. ( )
8. A camera and microphone are needed for video chats. ( )

II. Complete the following:

1. Communication that does not require an immediate response is called __. (A) Synchronous (B) Live (C) Asynchronous (D) Real-time
2. To use video chats, your device must have a ___ and a microphone. (A) Printer (B) Scanner (C) Flash drive (D) Camera
3. _____ is used to send formal messages to teachers or officials. (A) Email (B) Video chat (C) Instant messaging (D) Chat rooms
4. Chat rooms require an internet _____ like Google Chrome. (A) Monitor (B) Browser (C) Keyboard (D) Printer
5. Synchronous communication is useful for discussing _____ school topics. (A) Long (B) Formal (C) Quick (D) Delayed
6. Sending a message that can be read later is _____ communication. (A) Real-time (B) Asynchronous (C) Synchronous (D) Instant
7. _____ allow groups to communicate via text about a specific subject. (A) Emails (B) Chat rooms (C) Microphones (D) Cameras

Model 2

I. True (T) or False (F):

1. Asynchronous communication is better for sending a formal request. ( )
2. In synchronous communication, you can wait for days before replying. ( )
3. An internet browser is a tool used to access chat rooms. ( )
4. Instant messaging can include text, photos, and videos. ( )
5. Email is a type of synchronous communication tool. ( )
6. You use synchronous communication when the matter is urgent. ( )
7. Video chats only allow you to talk to one person at a time. ( )
8. Communication via phone is an example of synchronous communication. ( )

II. Complete the following:

1. Communication that happens in real-time is known as _____ communication. (A) Delayed (B) Synchronous (C) Email (D) Formal
2. You can use _____ to send large files or school assignments. (A) Video chats (B) Chat rooms (C) Instant messaging (D) Email
3. _____ allow you to see and hear the person you are talking to. (A) Text messages (B) Letters (C) Video chats (D) Emails
4. Instant messaging requires a _____ on your phone or computer. (A) Printer (B) Software/App (C) Scanner (D) Camera
5. Use _____ communication when you do not need an immediate response. (A) Synchronous (B) Fast (C) Asynchronous (D) Live
6. A _____ is used to access email websites. (A) Browser (B) Microphone (C) Camera (D) Speaker
7. Talking to a friend face-to-face via an app is _____ communication. (A) Slow (B) Synchronous (C) Asynchronous (D) Formal

Model 3

I. True (T) or False (F):

1. You can read an email and reply to it at any later time. ( )
2. Chat rooms require the parties to be online at the same time. ( )
3. Synchronous communication is like talking face-to-face. ( )
4. You should use synchronous communication to send a formal letter. ( )
5. Asynchronous communication is used when information is not urgent. ( )
6. You need an app or program for instant messaging. ( )
7. Information transfer in asynchronous communication must be immediate. ( )
8. Video chats are a tool for asynchronous communication. ( )

II. Complete the following:

1. Sending a quick text message to get an instant answer is _____.
   (A) Asynchronous (B) Email (C) Instant messaging (D) Formal
2. Email is a tool for _____ communication.
   (A) Real-time (B) Asynchronous (C) Synchronous (D) Video
3. To participate in a _____, you enter a group discussion about a topic. (A) Email (B) Chat room (C) Formal letter (D) Video call
4. Synchronous communication requires an _____ response.
   (A) Delayed (B) Immediate (C) Late (D) Optional
5. You use _____ when you want to communicate with an official.
   (A) Video chat (B) Phone calls (C) Email (D) Instant messaging
6. Real-time communication is _____ communication.
   (A) Synchronous (B) Asynchronous (C) Formal (D) Slow
7. Video chats require a _____ to hear and speak to the other person.
   (A) Printer (B) Mouse (C) Speaker/Microphone (D) Scanner

Lesson 4: Digital Communication Tools

Now that we have learned about synchronous and asynchronous communication, let's explore how to use each tool correctly and responsibly. Goal: Polite and ethical behavior online.

📄 *First: Video Chats*

Virtual classrooms rely on rules that ensure organized participation. 🛠️

Rules for Using Video Chats:

1. Camera and Microphone: Ensure they are turned on only after getting permission.
2. Respecting Others: Mute your microphone while others are speaking to avoid noise.
3. Appropriate Appearance: Wear suitable clothes and act as if you are in a public place.
4. Safe Background: Ensure no personal information (like your home address) is visible in the background.

🛠️ Steps to Join a Video Chat:

1. Click on the chat link.
2. Wait for the host (the person in charge) to let you in.

💬 *Second: Instant Messaging & Chat Rooms*

These are fast and fun, but you must follow these instructions:

1. Be Polite: Stay positive and polite in all messages.
2. Use Short Phrases: Instant messaging is informal; use short phrases instead of long sentences.
3. Stay Ethical: You can use emojis and images, but always treat others with respect.
4. Remember: Anyone in the chat room can read your message.

📧 *Third: Email*

Used for formal situations, such as messaging teachers or officials. 📝

Guidelines for Writing an Email:

1. Addresses: Put the recipient's email in the "To" field.
2. Subject Line: Provide a clear subject, e.g., "Digital Citizenship Homework."
3. Grammar: Use correct grammar and spelling.
4. Greeting and Closing: Start with a proper greeting and end with a polite closing.
5. Attachments: Ensure any attached files are correct, safe, and virus-free.

Model 1

I. True (T) or False (F):

1. You should turn on your camera and mic in a video chat without permission. ( )
2. In a video chat, you should act as if you are in a public place. ( )
3. Anyone in a chat room can read the messages you write. ( )
4. Email is used for informal, quick chats with friends. ( )
5. The subject line in an email should clearly explain what the message is about. ( )
6. You should mute your microphone when someone else is speaking. ( )
7. It is okay to show your home address in the background of a video call. ( )
8. You should use correct grammar when writing a formal email. ( )

II. Complete the following:

1. The ____ field in an email is where you type the recipient's address.
   (A) Subject (B) To (C) Attachment (D) Closing
2. Video chats are used in _____ to ensure organized participation.
   (A) Formal letters (B) Paper books (C) Virtual classrooms (D) Offline games
3. In instant messaging, it is better to use _____.
   (A) Long paragraphs (B) Secret codes
   (C) Short phrases (D) Anonymous names
4. Before sending an email _____, make sure it is safe and virus-free.
   (A) Greeting (B) Password (C) Attachment (D) Subject
5. When joining a video chat, you must wait for the _____ to let you in.
   (A) Hacker (B) Computer (C) Person in charge (D) Internet provider
6. Email is most suitable for _____ situations.
   (A) Informal (B) Formal (C) Dangerous (D) Random
7. To avoid noise in a video call, you should _____ your microphone.
   (A) Turn up (B) Break (C) Mute (D) Ignore

Model 2

I. True (T) or False (F):

1. Instant messaging is a formal way to contact government officials. ( )
2. You should start an email with a proper greeting. ( )
3. In a video chat, your background should not show personal information. ( )
4. You must wait for the host to allow you to enter a video chat. ( )
5. Emojis and images should never be used in chat rooms. ( )
6. Using a clear subject line is an important rule for writing emails. ( )
7. You should wear appropriate clothes when your camera is on. ( )
8. Chat rooms are private and no one can see what you write. ( )

II. Complete the following:

1. To join a video chat, the first step is to click on the _____.
   (A) Power button (B) Chat link (C) Attachment (D) Screen
2. You should behave _____ and positively in chat rooms.
   (A) Rudely (B) Politely (C) Loudly (D) Secretly
3. The _____ line helps the receiver know what the email is about.
   (A) To (B) From (C) Subject (D) Closing
4. Muting the microphone helps to avoid _____ while others speak.
   (A) Music (B) Learning (C) Noise (D) Video
5. Writing to your teacher to ask for help is best done via _____.
   (A) Chat rooms (B) Video games (C) Email (D) Radio
6. In ____, it is common to use short phrases instead of full sentences.
   (A) Formal reports (B) Instant messaging
   (C) Textbooks (D) Official emails
7. When you finish an email, you should include a polite _____.
   (A) Subject (B) Attachment (C) Greeting (D) Closing

Model 3

I. True (T) or False (F):

1. You should always check attachments for viruses before sending them. ( )
2. Muting your mic during a video call is considered disrespectful. ( )
3. Email is the best tool for a quick, informal chat with a classmate. ( )
4. A safe background in a video chat means no private data is visible. ( )
5. You must use correct grammar in formal email communication. ( )
6. You can enter any video chat immediately without waiting for permission. ( )
7. Chat rooms allow group communication about a specific topic. ( )
8. You should act professionally when the camera is on during a call. ( )

II. Complete the following:

1. _____ messaging is a quick and informal way to communicate.
   (A) Formal (B) Paper (C) Instant (D) Postal
2. In the "To" field of an email, we write the _____ address.
   (A) Recipient's (B) Home (C) School (D) Subject
3. To participate in a video chat, you need a camera and a _____.
   (A) Printer (B) Microphone (C) Scanner (D) Mouse
4. If you are sending a school assignment to your teacher, use _____.
   (A) A chat room (B) Email (C) A phone call (D) Instant messaging
5. Any person in a _____ can read the messages posted there.
   (A) Locked file (B) Private diary (C) Chat room (D) Safe box
6. You should check that _____ are safe before opening them in an email.
   (A) Greetings (B) Subject lines (C) Closings (D) Attachments
7. In a video chat, you should act as if you are in a _____ place.
   (A) Private (B) Dark (C) Public (D) Secret

Lesson 5: My Tools for Online Learning

Learning is no longer limited to the classroom; students can communicate, experiment, and discover information from home thanks to online learning environments and sources.

📄 *First: Online Learning Environments*

- Definition: Platforms that allow teachers and students to communicate with each other.
- Famous Example: Edmodo platform.

🛠️ Functions of Online Learning Environments:

1. For Teachers: To provide lessons and upload tests and homework assignments.
2. For Students: To communicate with the teacher, submit completed assignments, and download lessons or tests.

🛣️ *Second: Online Learning Sources*

Huge online libraries provide information. It is essential to rely on reliable sources when searching for information.

📝 Examples of Reliable Learning Sources:

1. Egyptian Knowledge Bank (EKB):
   - A massive electronic library in Egypt.
   - Contains diverse topics and sources in all fields, such as articles and videos.
2. Vlaby:
   - An interactive virtual labs platform.
   - Enables students and teachers to conduct fun science experiments online.
   - Makes learning interactive rather than just reading information.
3. Interactive Map Maker:
   - A free tool available on tablets and laptops.
   - Provides online tools for drawing and mapping.
   - Allows users to collect and research data using maps.
   - Users must ensure digital tools are reliable when collecting data.

Model 1

I. True (T) or False (F):

1. Learning is now limited only to the physical classroom. ( )
2. Edmodo is a platform where teachers can upload tests for students. ( )
3. The Egyptian Knowledge Bank is an unreliable source of information. ( )
4. Vlaby allows students to conduct science experiments virtually. ( )
5. Interactive Map Maker is a paid tool that requires a monthly fee. ( )
6. Students can submit their homework through online learning environments. ( )
7. It is important to use reliable sources when searching for information. ( )
8. Interactive Map Maker can be used on tablets and laptops. ( )

II. Complete the following:

1. _____ is a platform that allows teachers and students to communicate and share lessons.
   (A) Vlaby (B) Edmodo (C) Facebook (D) YouTube
2. To perform a chemistry experiment safely online, you can use ____.
   (A) Interactive Map Maker (B) EKB (C) Vlaby (D) Email
3. The _____ is a huge electronic library available to all Egyptians.
   (A) Interactive Map Maker (B) Edmodo
   (C) Egyptian Knowledge Bank (D) Vlaby
4. Teachers use Edmodo to _____ homework for their students.
   (A) Delete (B) Play (C) Upload (D) Hide
5. You can use _____ to draw and collect data using maps.

(A) Vlaby (B) Interactive Map Maker (C) Edmodo (D) Instant Messaging

6. Online learning _____ include libraries like the Egyptian Knowledge Bank.
   (A) Problems (B) Games (C) Environments (D) Sources
7. Using _____ virtual labs makes learning more interactive and fun.
   (A) Edmodo's (B) EKB's (C) Vlaby's (D) Google's

Model 2

I. True (T) or False (F):

1. Teachers can use online platforms to provide lessons from home. ( )
2. Interactive Map Maker provides tools for drawing and mapping. ( )
3. You should always trust any information found on random websites. ( )
4. Vlaby is used to send formal emails to school officials. ( )
5. Students can download tests from their teachers on Edmodo. ( )
6. The Egyptian Knowledge Bank contains only videos and no articles. ( )
7. Online learning environments like Edmodo help in distance learning. ( )
8. Researching data using maps is a feature of the Interactive Map Maker. ( )

II. Complete the following:

1. One of the main functions of _____ is conducting interactive experiments. (A) Edmodo (B) Vlaby (C) Email (D) Chat rooms
2. Edmodo is an example of an online learning _____.
   (A) Source (B) Environment (C) Map (D) Problem
3. _____ is a reliable source that provides diverse articles and videos in Egypt. (A) Vlaby (B) Edmodo (C) EKB (D) WhatsApp
4. Interactive Map Maker is a _____ tool for students and teachers.
   (A) Free (B) Broken (C) Private (D) Secret
5. Students use Edmodo to ____ their completed tasks to the teacher.
   (A) Print (B) Send (C) Delete (D) Watch
6. We must ensure that digital tools are _____ before collecting data.
   (A) Expensive (B) Reliable (C) New (D) Fast
7. Online _____ allow students to discover information without leaving home.
   (A) Maps (B) Sources (C) Libraries (D) All of the above

Model 3

I. True (T) or False (F):

1. Edmodo is primarily used for playing video games with classmates. ( )
2. Vlaby makes science learning interactive rather than just reading. ( )
3. The Egyptian Knowledge Bank is a massive library for all fields. ( )
4. You need a device like a tablet or laptop to use the Interactive Map Maker. ( )
5. Teachers cannot upload assignments on learning platforms. ( )
6. Reliability is not important when picking online learning tools. ( )
7. Communication between teachers and students can happen on Edmodo. ( )
8. Interactive Map Maker allows users to search for data using maps. ( )

II. Complete the following:

1. To find reliable information for a research project in Egypt, visit ___.
   (A) Vlaby (B) EKB (C) Map Maker (D) Chat rooms
2. Online learning platforms like Edmodo allow _____ between teachers and students.
   (A) Conflict (B) Communication (C) Isolation (D) Problems
3. _____ provides a virtual lab experience for school experiments.
   (A) Edmodo (B) EKB (C) Vlaby (D) Email
4. Interactive Map Maker is used to collect _____.
   (A) Money (B) Games (C) Data (D) Passwords
5. Platforms that allow sharing of lessons and tests are called learning
   (A) Games (B) Sources (C) Environments (D) Maps
6. Reliable sources like _____ contain articles and educational videos.
   (A) EKB (B) Vlaby (C) Map Maker (D) Edmodo
7. Students _____ lessons from Edmodo to study them at home.
   (A) Delete (B) Upload (C) Download (D) Block

Lesson 6: Digital Research Skills – Planning and Evaluating Sources

When you want to search for a new topic online, you shouldn't start searching immediately. Instead, you must:

1. Plan your research to collect information.
2. Verify that the information is correct and reliable.

First: Planning Your Digital Research

1. Choose a Topic: Think about your topic (e.g., Dinosaurs, Space, Environment) and determine what you already know and what you want to learn. Write down simple notes before starting.
2. Choose Source Types: Digital research includes images, audio recordings, videos, and written sources. Consult your teacher or parents for reliable sources.
3. Evaluate Sources: Check the information you find to see if it is reliable or not.

Second: Evaluating Sources During Research

You will find two types of sources, and you must know the difference to get accurate information:

1. Reliable Sources:
   - Articles or information written by experts and verified for accuracy.
   - Written professionally without spelling or grammar mistakes.
   - Examples: Egyptian Knowledge Bank (EKB), official government websites, digital school books.
2. Unreliable Sources:
   - May contain correct information, but also include personal opinions and lies.
   - Must be used with great caution.
   - Examples: Social media (Facebook), Blogs, Wiki sites.

💡 *Third: Tips During Research*

- Stay focused only on your topic to avoid distractions.
- Always question the reliability of the information you find.
- Take detailed notes and mention the source in your report.

📝 *Fourth: Organizing and Writing the Report*

After collecting notes from reliable sources, write the report logically. Use a research outline to organize your notes before writing. Main Parts of an Outline:

1. Introduction: Introduces the topic of the report.
2. Supporting Paragraphs: Provide the information and details you found.
3. Conclusion: Final thoughts and what you have learned from the research.

Model 1

I. True (T) or False (F):

1. You should start searching online immediately without any prior planning. ( )
2. Reliable sources are usually written by experts and have no grammar mistakes. ( )
3. Facebook and personal blogs are considered highly reliable sources. ( )
4. An outline helps you organize your notes before writing a report. ( )
5. Digital research can include videos and audio recordings. ( )
6. Wiki sites are reliable sources that provide verified information. ( )
7. The conclusion of a report introduces the topic for the first time. ( )
8. You should consult your teacher or parents to find reliable sources. ( )

II. Complete the following:

1. _____ are sources that may contain opinions, lies, and unverified information. (A) Government sites (B) Unreliable sources (C) School books (D) Reliable sources
2. The _____ of a report provides the details and information found during research.
   (A) Introduction (B) Title (C) Supporting paragraphs (D) Conclusion
3. Before you start writing your report, use a research _____ to organize your ideas. (A) Game (B) Outline (C) Video (D) Email
4. The Egyptian Knowledge Bank is an example of a _____ source.
   (A) Social (B) Unreliable (C) Reliable (D) Fake
5. The ____ part of the outline tells the reader what the report is about.

(A) Conclusion (B) Supporting Paragraph (C) Introduction (D) Source list

6. Professional articles written by experts are found in _____ sources.
   (A) Wiki (B) Reliable (C) Blog (D) Facebook
7. When writing a report, you should _____ the sources you used.
   (A) Hide (B) Mention (C) Delete (D) Ignore

Model 2

I. True (T) or False (F):

1. Planning your research is the first step in collecting information. ( )
2. Information from official government websites is usually reliable. ( )
3. You should take detailed notes while conducting your research. ( )
4. Supporting paragraphs come at the very end of your research report. ( )
5. Blogs are considered unreliable because they often contain personal opinions. ( )
6. Reliable sources often contain many spelling and grammar errors. ( )
7. The conclusion summarizes what you have learned from your research. ( )
8. You don't need to verify information if you found it on a social media site. ( )

II. Complete the following:

1. One of the best examples of a reliable digital source in Egypt is ___.
   (A) Facebook (B) Twitter (C) EKB (D) Personal Blogs
2. A research report should end with a _____ that gives final thoughts.
   (A) Question (B) Conclusion (C) Supporting paragraph (D) Introduction
3. Using a _____ helps in presenting information in a logical and organized way.
   (A) Random list (B) Research outline (C) Video game (D) Social media post
4. Information that contains professional writing and facts is called ___.
   (A) Unreliable (B) Fake (C) Reliable (D) Opinionated
5. Sites like _ allow anyone to edit information, making them unreliable.
   (A) EKB (B) Wikis (C) Government sites (D) Digital libraries
6. The first step in planning research is _____.
   (A) Writing the conclusion (B) Choosing a topic
   (C) Printing the report (D) Deleting notes
7. Digital research sources can be written, visual, or _____. (A) Printed only (B) Audio (C) Broken (D) Secret

Model 3

I. True (T) or False (F):

1. An outline is used to organize notes before writing the final report. ( )
2. Reliable sources include digital school books and official websites. ( )
3. You should include your home address in the introduction of every report. ( )
4. Unreliable sources may include lies or incorrect information. ( )
5. Taking notes is an unnecessary step in the research process. ( )
6. The introduction of a report provides final thoughts about the topic. ( )
7. You should stay focused on your specific topic while searching online. ( )
8. Experts write articles in reliable sources after verifying the facts. ( )

II. Complete the following:

1. To organize your notes and thoughts, you should create a _____.
   (A) Game (B) Password (C) Research outline (D) Chat room
2. We should be very cautious when using _____ sources like social media.
   (A) Reliable (B) Government (C) Unreliable (D) Verified
3. The _____ presents the research results and detailed information.

(A) Supporting paragraphs (B) Introduction (C) Conclusion (D) Subject line

4. _____ are examples of unreliable sources because they reflect personal views.
   (A) Government sites (B) Blogs (C) School books (D) EKB
5. Planning your research helps you collect information more _____.
   (A) Slowly (B) Effectively (C) Randomly (D) Difficultly
6. In the _____, you mention what you have learned from your search.

(A) Introduction (B) Supporting Paragraph (C) Conclusion (D) Search engine

7. Reliable sources are written _____ and without linguistic errors.
   (A) Professionally (B) Carelessly (C) Randomly (D) Secretly

Unit 4: My Digital Project

Lesson 1: Solving Digital Problems

You may face small or large problems when using technology. Sometimes solving them seems difficult, but by following organized steps, problem-solving becomes easier.

🛠️ *Steps to Solve Digital Problems:*

Solving problems in technology requires logical thinking and includes the following steps:

1. Formulating a Hypothesis:

- Make a scientific guess or a preliminary explanation about how the problem happened.
- This guess is called a Hypothesis, and it is the starting point you can test.

2. Testing the Hypothesis:

- Do not risk trying anything that might put your device at risk.
- The test must be safe and well-thought-out.

3. Learning from Errors:

- If your test fails, think: What went wrong? What did I learn?
- You must learn from errors and build a new, more accurate hypothesis.

🛠️ *Breaking Down Problems into Small Parts:*

- Divide a large problem into small parts, then solve each part gradually.
- This method is used for large and complex technical problems, such as:
  - Internet connection issues.
  - An application not working.
- If you have a group of people helping you, a small part can be assigned to each person to solve separately.

📌 *Real-Life Example:*

Organizing a class trip might seem difficult, but breaking it down into small tasks makes it much easier:

1. Deciding the destination.
2. Setting the date.
3. Asking the relevant authority about the price.

Note: When breaking down a large technological problem, start by solving the parts you can do yourself, step by step, until the major problem is solved.

Model 1

I. True (T) or False (F):

1. A hypothesis is a scientific guess about how a problem happened. ( )
2. You should test any hypothesis even if it puts your device at risk. ( )
3. Dividing a large problem into small parts makes it harder to solve. ( )
4. Solving technical problems requires logical thinking. ( )
5. If a hypothesis test fails, you should give up and stop trying. ( )
6. Breaking down problems is helpful when working in a group. ( )
7. Organizing a class trip is an example of a task that can be subdivided. ( )
8. Testing a hypothesis must be a safe and studied process. ( )

II. Complete the following:

1. A _____ is a preliminary explanation of a problem that can be tested.
   (A) Solution (B) Hypothesis (C) Result (D) Problem
2. When a problem is too complex, you should _____ it into smaller parts. (A) Ignore (B) Delete (C) Divide (D) Increase
3. Solving the parts you can do _____ is the first step in solving a big problem. (A) With help (B) Alone (C) Never (D) Randomly
4. If your hypothesis test fails, you should _____.
   (A) Break the device (B) Build a new hypothesis
   (C) Stop using technology (D) Cry
5. Testing a hypothesis should never _____ your computer or tablet. (A) Help (B) Upgrade (C) Endanger (D) Clean
6. Identifying the destination is a small _____ when organizing a class trip. (A) Problem (B) Hypothesis (C) Task (D) Error
7. To solve an internet connection issue, we use _____ thinking.
   (A) Random (B) Logical (C) Slow (D) No

Model 2

I. True (T) or False (F):

1. Logical thinking is not necessary for solving digital problems. ( )
2. Learning from errors helps in building a more accurate hypothesis. ( )
3. A large problem should be solved all at once, not in parts. ( )
4. A hypothesis is the starting point for solving any digital issue. ( )
5. You can assign small parts of a problem to different people in a group. ( )
6. Safety is the most important factor when testing a hypothesis. ( )
7. You should only solve the easy parts of a problem and ignore the rest. ( )
8. Technology problems can always be solved by following organized steps. ( )

II. Complete the following:

1. Dividing a problem into small parts is a method used for _____ problems. (A) Easy (B) Simple (C) Complex (D) Short
2. After making a guess, the next step is _____ the hypothesis. (A) Deleting (B) Testing (C) Forgetting (D) Printing
3. A ____ is a scientific guess to explain why a program is not working. (A) Goal (B) Task (C) Hypothesis (D) Fact
4. If the first hypothesis is wrong, we must _____ from our mistake. (A) Run (B) Learn (C) Hide (D) Sleep
5. When working as a team, each person can solve a ____ of the problem. (A) Whole (B) Part (C) Hypothesis (D) Device
6. An example of a digital problem is _____.

(A) A broken chair (B) An app not working (C) A lost book (D) A dirty desk

7. Testing a hypothesis must be _____ to avoid damaging the hardware. (A) Dangerous (B) Safe (C) Random (D) Fast

Model 3

I. True (T) or False (F):

1. A hypothesis is a final solution that does not need testing. ( )
2. Breaking down a task like "setting a trip date" makes the big task easier. ( )
3. You must always risk your device to find a solution quickly. ( )
4. Failure in testing a hypothesis provides information for a new one. ( )
5. Large digital problems require a step-by-step approach. ( )
6. A scientific guess is called a hypothesis. ( )
7. You should start with the most difficult part of a problem first. ( )
8. Logical thinking helps in organizing the steps of problem-solving. ( )

II. Complete the following:

1. To solve a big technical problem, we should follow _____ steps.
   (A) Random (B) Organized (C) Confusing (D) Secret
2. If your hypothesis test was _____, you need to think of a new one.
   (A) Successful (B) Unsuccessful (C) Easy (D) Fast
3. Making a scientific guess is the _____ step in solving a digital problem. (A) Last (B) First (C) Only (D) Optional
4. _____ a problem into parts helps you focus on one thing at a time.
   (A) Joining (B) Deleting (C) Splitting (D) Ignoring
5. A _____ is something you can test to see if it solves the issue.
   (A) Screen (B) Hypothesis (C) Mouse (D) Keyboard
6. When solving a problem, we should use _____.
   (A) Guessing only (B) Logical thinking (C) Anger (D) Luck
7. Asking about the price of a trip is part of _____ a big task.
   (A) Avoiding (B) Subdividing (C) Failing (D) Testing

Lesson 2: Presenting Information

When we want to present information or announce an idea attractively, we use digital tools to design posters or billboards. Goal: To learn the tools and the principles of good design.

🗎 *Digital Tools for Presenting Information:*

The Microsoft 365 suite offers excellent options for design, posters, and billboards. Examples of Programs:

1. PowerPoint: Used to design easy and fast presentation slides.
2. Microsoft Word: Used for writing text and can be used for simple poster designs.
3. Microsoft Publisher: A professional program for designing posters, brochures, and advertisements in an organized way. *Note: To access these, you must have Microsoft 365 on your device and ensure the device is updated.*

Digital Design Concepts to Consider:

When designing a poster, you must consider these elements to make it attractive and easy to read:

1. Margins:
   - The empty space around the edges of the poster or billboard.
   - You should leave a consistent margin (e.g., 2.5 cm).
   - If the edges are too crowded, the design looks unattractive.
2. Font Type and Size:
   - Everyone should be able to read the information easily.
   - Avoid complex fonts that distract the reader. Simplicity is best.
3. Colors:
   - Colors help deliver the message and attract attention.
   - It is preferable to use fewer than three colors in a poster.
   - Consider the background color when choosing the font color.
4. Images:
   - Images must match the content.
   - Use clear, high-quality images relevant to the topic.

Model 1

I. True (T) or False (F):

1. Microsoft 365 suite includes programs like Word and PowerPoint. ( )
2. Margins are the crowded spaces in the middle of a poster. ( )
3. You should use as many colors as possible to make a poster attractive. ( )
4. Microsoft Publisher is a professional tool for designing brochures. ( )
5. Simple fonts are better for posters because they are easy to read. ( )
6. Images in a design do not necessarily have to match the content. ( )
7. Leaving a margin of 2.5 cm helps make the design look organized. ( )
8. PowerPoint is specifically used for writing long books only. ( )

II. Complete the following:

1. The _____ is the empty space around the edges of your design.
   (A) Color (B) Margin (C) Image (D) Font
2. It is recommended to use fewer than _____ colors in a single poster.
   (A) Ten (B) Five (C) Three (D) Seven
3. _____ is an excellent program for creating presentation slides.
   (A) Excel (B) PowerPoint (C) Paint (D) Calculator
4. To make your poster easy to read, you should avoid _____ fonts.
   (A) Simple (B) Clear (C) Complex (D) Large
5. When choosing a font color, you must also consider the ____ color.
   (A) Laptop (B) Room (C) Background (D) Printer
6. Microsoft _____ is a professional program used for designing advertisements. (A) Word (B) Publisher (C) PowerPoint (D) Chrome
7. Images used in a digital poster should be _____ and high quality.
   (A) Blurry (B) Small (C) Clear (D) Dark

Model 2

I. True (T) or False (F):

1. Using too many colors can distract the person looking at the poster. ( )
2. Word can be used for writing text and designing simple posters. ( )
3. A poster looks better when the edges are crowded with text. ( )
4. Font size should be large enough for everyone to read easily. ( )
5. You must update your device to use the latest Microsoft 365 tools. ( )
6. The background color has no effect on how the text appears. ( )
7. High-quality images make the design look more professional. ( )
8. Margins should be inconsistent and vary on every side. ( )

II. Complete the following:

1. Microsoft _____ is primarily used for word processing and writing.
   (A) PowerPoint (B) Publisher (C) Word (D) Excel
2. A good margin size to leave around your design is _____.
   (A) 10 cm (B) 0 cm (C) 2.5 cm (D) 50 cm
3. Using _____ makes the information on a poster easier to understand.

(A) Complex fonts (B) Relevant images (C) Crowded edges (D) Dark colors

4. Presentation slides are best designed using _____.
   (A) Word (B) PowerPoint (C) Publisher (D) WhatsApp
5. Designers use _____ to attract attention and deliver a message.
   (A) Noises (B) Colors (C) Viruses (D) Passwords
6. If you want to design a professional brochure, the best tool is _____.
   (A) Publisher (B) Calculator (C) Notepad (D) Media Player
7. Simplicty in _____ makes the poster look clean and professional.
   (A) Problems (B) Design (C) Errors (D) Costs

Model 3

I. True (T) or False (F):

1. Microsoft 365 is a set of digital tools for presenting information. ( )
2. Complex fonts help people read the information faster. ( )
3. Images should be relevant to the topic of the poster. ( )
4. PowerPoint is a professional software for designing newspapers. ( )
5. Crowded designs are usually unattractive to the eye. ( )
6. You should consider the font color relative to the background color. ( )
7. Posters and billboards are used to announce ideas attractively. ( )
8. Designing a poster does not require leaving any empty spaces. ( )

II. Complete the following:

1. To present an idea attractively, you can design a _____.
   (A) Password (B) Poster (C) Keyboard (D) Mouse
2. Choosing a _____ font is a key rule for a successful design.
   (A) Hidden (B) Simple (C) Small (D) Messy
3. The space around the edges of a billboard is called the _____.
   (A) Border (B) Frame (C) Margin (D) Center
4. To create a series of slides, use _____.

(A) Microsoft Word (B) Microsoft PowerPoint (C) Microsoft Paint (D) Google

5. It is best to use _____ colors in your design to keep it simple.
   (A) Many (B) Limited (C) Glowing (D) Random
6. You can design a professional flyer using _____.
   (A) Publisher (B) Excel (C) Zoom (D) YouTube
7. When you add a photo to a poster, it should be _____.
   (A) Large and blurry (B) Related to the topic
   (C) Completely black (D) From a game

Lesson 3: Algorithms

Did you know that everything you do in your day is a series of steps? This series is called an Algorithm.

🛠️ *Definition of an Algorithm:*

An Algorithm is a finite set of clear instructions and sequential, organized steps used to:

- Solve a specific problem.
- Accomplish a specific task.

📌 Illustrative Example: Addition Algorithm

1. Start.
2. Enter the first number (A).
3. Enter the second number (B).
4. Calculate the sum: $C = A + B$.
5. Display the result (C).
6. End.

✅ *Basic Characteristics of an Algorithm:*

A good algorithm must have the following:

1. Clarity and Precision: Each step must be clear and unambiguous.
2. Inputs: It must accept zero or more inputs.
3. Outputs: It must produce at least one output that represents the solution.
4. Finiteness: The algorithm must stop after a limited (finite) number of steps.
5. Effectiveness: Each step must be practically executable.

Algorithms and Search Engines:

Computers use algorithms to perform specific tasks, such as search engines.

How Search Engines Use Algorithms:

1. You type keywords into the search engine.
2. The engine uses smart algorithms to provide the most relevant results to your search topic.

Illustrative Example:

If you use a search engine to find directions to a place, the engine uses a database of names and information in digital maps to provide the results.

Search Accuracy:

- It is important to choose the correct words when collecting information.
- If your phrasing is not precise, the search engine's algorithm might not be perfectly accurate in providing results.

Model 1

I. True (T) or False (F):

1. An algorithm is a series of organized steps to solve a problem. ( )
2. Algorithms must go on forever and never stop. ( )
3. Search engines use smart algorithms to find relevant results. ( )
4. Every step in an algorithm should be clear and precise. ( )
5. An algorithm can produce many results but no output at all. ( )
6. Choosing incorrect keywords helps algorithms work better. ( )
7. Digital maps use databases to provide directions via algorithms. ( )
8. "Calculating the sum" is a step in an addition algorithm. ( )

II. Complete the following:

1. A _____ is a set of clear instructions to complete a task.
   (A) Digital map (B) Algorithm (C) Keyword (D) Result
2. To get accurate search results, you must use precise _____.
   (A) Passwords (B) Keywords (C) Images (D) Algorithms
3. One characteristic of an algorithm is _____, meaning it must have a final step.
   (A) Effectiveness (B) Finiteness (C) Clarity (D) Input
4. Search engines use algorithms to find information in a _____.
   (A) Printer (B) Database (C) Mouse (D) Camera
5. In an addition algorithm, the final result is called the _____.
   (A) Input (B) Process (C) Output (D) Start
6. Each step in a good algorithm must be _____ to perform.
   (A) Impossible (B) Executable (C) Random (D) Hidden
7. Algorithms are used by _____ to help us find locations on maps.
   (A) Computers (B) Books (C) Pens (D) Radios

Model 2

I. True (T) or False (F):

1. Computers use algorithms only for playing music. ( )
2. A good algorithm should be ambiguous and unclear. ( )
3. "Inputting numbers" is the first step after starting an addition algorithm. ( )
4. If your search keywords are not precise, results might be inaccurate. ( )
5. Finiteness means the algorithm stops after a limited number of steps. ( )
6. An algorithm must have at least one output. ( )
7. Daily routines, like making tea, can be described as algorithms. ( )
8. Smart algorithms are not used in digital search engines. ( )

II. Complete the following:

1. Search engines provide results that are _____ to your keywords.
   (A) Irrelevant (B) Relevant (C) Opposite (D) Random
2. An algorithm must accept zero or more _____ to start.
   (A) Outputs (B) Results (C) Inputs (D) Closings
3. The step "Display the result" represents the _____ in an algorithm.
   (A) Input (B) Starting point (C) Output (D) Calculation
4. Using _____ phrasing makes the search algorithm more accurate.
   (A) Precise (B) Vague (C) Long (D) Wrong
5. A _____ set of instructions means the algorithm has an end.
   (A) Infinite (B) Limited (C) Large (D) Broken
6. We use _____ to solve a specific mathematical problem.
   (A) Passwords (B) Algorithms (C) Emails (D) Chat rooms
7. If you search for a place, the engine uses _____ information.
   (A) Guessing (B) Digital map (C) No (D) Paper

Model 3

I. True (T) or False (F):

1. Algorithms are a series of steps we follow to accomplish a task. ( )
2. A search engine's algorithm depends on the words you type. ( )
3. Clarity and precision are not important in writing algorithms. ( )
4. An algorithm should always produce at least one output. ( )
5. Digital maps do not use any databases to show directions. ( )
6. Each step in an algorithm must be executable in practice. ( )
7. The addition algorithm starts by displaying the result first. ( )
8. Finiteness is a key characteristic of any successful algorithm. ( )

II. Complete the following:

1. When you type in a search engine, you are providing _____.
   (A) Results (B) Keywords (C) Outputs (D) Finished tasks
2. The characteristic that ensures an algorithm is practical is _____.
   (A) Clarity (B) Effectiveness (C) Finiteness (D) Complexity
3. An algorithm is a sequence of _____ steps.
   (A) Disorganized (B) Organized (C) Random (D) Hidden
4. Computers use _____ to perform tasks like searching the internet.
   (A) Papers (B) Algorithms (C) Pencils (D) Files
5. To calculate $A + B$, the algorithm needs A and B as _____.
   (A) Outputs (B) Inputs (C) Conclusions (D) Results
6. If a search engine can't find what you want, you may need better __.
   (A) Keywords (B) Keyboards (C) Screens (D) Cables
7. A _____ number of steps means the algorithm will eventually stop.
   (A) Huge (B) Finite (C) Infinite (D) Zero

Lesson 4: Programming – Computer Language and Game Making

Can you imagine talking to a computer? Programming is the language of computers, and it is like writing a very large food recipe. It consists of writing multiple algorithms to create a complete program.

🛠️ *Definition of Algorithms in Programming:*

Algorithms are the instructions and steps that tell the computer exactly what to do, such as:

- Steps to solve a math problem.
- The way to prepare a falafel sandwich.

💻 *Programming in the World of Technology:*

Programming is involved in most things we use daily:

1. Entertainment: Animated films, movies, and online video games are created using programming.
2. Creativity: You can innovate animations and games using Coding.
3. Smart Devices: Computers and apps use algorithms as the foundation of programming to perform specific tasks.

🧠 *Computational Thinking and Problem Solving:*

Programming teaches you how to think logically to solve problems. When you program, you provide detailed instructions to the computer.

Example: Solving a Maze Programming requires thinking in sequential steps to allow the computer to navigate a maze. *Example of programming instructions:*

1. Move two steps up.
2. Turn one step to the left.
3. And so on...

🛠️ *Helpful Tools:*

There are many websites that help you learn programming, such as code.org.

Model 1

I. True (T) or False (F): [8 Questions]

1. Programming is considered the language that computers understand. ( )
2. An algorithm in programming is like a food recipe for the computer. ( )
3. Video games are created without using any programming codes. ( )
4. Programming helps you learn how to think logically. ( )
5. You can only use programming for solving math problems. ( )
6. Code.org is a website that helps students learn programming. ( )
7. Coding is used to create animations and movies. ( )
8. Computers don't need detailed instructions to perform tasks. ( )

II. Complete the following: [7 Questions]

1. _____ is the process of writing algorithms to create a complete program. (A) Drawing (B) Programming (C) Printing (D) Scanning
2. To solve a maze, the computer needs _____ instructions.
   (A) Vague (B) Random (C) Sequential (D) Wrong
3. You can learn coding through websites like _____.
   (A) Facebook (B) Code.org (C) YouTube (D) Wikipedia
4. The instructions that tell the computer what to do are called _____.
   (A) Algorithms (B) Screens (C) Keyboards (D) Batteries
5. Programming is used in entertainment to create _____.
   (A) Paper books (B) Video games (C) Wooden toys (D) Pencils
6. Writing programming code is also known as _____.
   (A) Coding (B) Typing (C) Painting (D) Chatting
7. Smart devices use _____ as a foundation for their programming.
   (A) Games (B) Algorithms (C) Movies (D) Images

Model 2

I. True (T) or False (F): [8 Questions]

1. Solving a maze requires a sequence of specific steps. ( )
2. Programming is not used in the making of animated films. ( )
3. An algorithm is a set of instructions that the computer follows. ( )
4. Logic is a key part of computational thinking. ( )
5. Code.org is a site used for social media and chatting only. ( )
6. Most smart devices depend on programming to work. ( )
7. Programming instructions must be very detailed and clear. ( )
8. You cannot be creative if you use programming. ( )

II. Complete the following: [7 Questions]

1. Programming is similar to writing a _____ for the computer.
   (A) Recipe (B) Song (C) Letter (D) Poem
2. We use _____ to create apps and programs.
   (A) Hammers (B) Coding (C) Pencils (D) Brushes
3. To tell a computer to "move left," you are using an _____.
   (A) Image (B) Algorithm (C) Email (D) Sound
4. One of the goals of learning programming is solving _____.
   (A) Problems (B) Hobbies (C) Dreams (D) Sports
5. Movies and animations are examples of programming in _____.
   (A) Medicine (B) Agriculture (C) Entertainment (D) Fishing
6. The website _____ is a great tool for beginners in coding.
   (A) Google (B) Code.org (C) Amazon (D) Twitter
7. Programming is the _____ used to talk to computers.
   (A) Sound (B) Language (C) Tool (D) Hardware

Model 3

I. True (T) or False (F): [8 Questions]

1. Programming consists of many algorithms combined together. ( )
2. You can use coding to build your own online games. ( )
3. Computers can think for themselves without any programming. ( )
4. Logical thinking is developed through learning programming. ( )
5. A recipe for a sandwich is a real-life example of an algorithm. ( )
6. You only need one step to program a complex game. ( )
7. Programming is involved in creating smart phone applications. ( )
8. Detailed instructions are necessary for a computer to navigate a maze. ( )

II. Complete the following: [7 Questions]

1. Instructions like "move two steps up" are part of a _____.

(A) Programming code (B) Physical exercise (C) Paper map (D) Phone call

2. To create a digital program, you must write _____.

   (A) Stories (B) Algorithms (C) Letters (D) News

3. Programming is a way to express _____ by making movies and games. (A) Creativity (B) Boredom (C) Anger (D) Sleepiness
4. Computers follow algorithms to perform _____ tasks.

   (A) Random (B) Specific (C) Impossible (D) Unknown

5. Solving problems _____ is a skill learned from programming.

   (A) Logically (B) Randomly (C) Quickly (D) Roughly

6. Writing a program is like creating a large _____ of instructions.

   (A) Book (B) Collection (C) Drawing (D) File

7. If you want to move a character in a game, you need _____.

   (A) Magic (B) Coding (C) Luck (D) A printer

Lesson 5: Exploring Scratch (استكشاف برنامج سكراتش)

Imagine you are an orchestra conductor, and the instruments are your characters on the screen. You decide when they move, speak, or sing!

📄 *Programming Apps for Kids:*

1. Scratch: Designed specifically for children to turn ideas into interactive stories and games using "Block Programming."
2. Tynker: An educational environment for learning basics. It starts with blocks and moves to text languages like Python and JavaScript.
3. Blockly: An open-source visual language. Users snap blocks together to solve puzzles.

🛠️ *How Scratch Works:*

- Blocks (اللبنات): Colored blocks representing ready-made commands (Move, Say, Play Sound).
- Scripts (المقاطع البرمجية): A group of blocks connected together to give orders to a character.
- Interface Parts:
  - Stage (المنصة): Where the project is displayed and characters move.
  - Blocks Palette (منطقة اللبنات): The library containing all colored commands.
  - Scripts Area (منطقة المقاطع): The workspace where you drag and snap blocks.
  - Sprite (الكائن): The character on the screen (like the famous Scratch Cat).

Model 1

I. True (T) or False (F): [8 Questions]

1. Scratch is a programming language designed specifically for adults. ( )
2. Tynker uses blocks and also supports languages like Python. ( )
3. The "Stage" is the area where you drag and snap blocks together. ( )
4. A "Sprite" is the character that receives commands in Scratch. ( )
5. You can only use Scratch if you have an active internet connection. ( )
6. Blockly is an open-source visual programming language. ( )
7. Colored blocks in Scratch represent ready-made commands. ( )
8. To start a project, you often use the "When Green Flag Clicked" block. ( )

II. Complete the following: [7 Questions]

1. The _____ is the screen where your final project is displayed.
   (A) Blocks Palette (B) Stage (C) Scripts Area (D) Sprite
2. A group of blocks connected together is called a _____.
   (A) Sprite (B) Stage (C) Script (D) Library
3. To make a character move, you drag blocks from the _____ section. (A) Sound (B) Events (C) Motion (D) Looks
4. ___ is a website that helps kids learn programming through puzzles.
   (A) Facebook (B) Blockly Games (C) WhatsApp (D) YouTube
5. The default character in Scratch is often a _____.
   (A) Dog (B) Cat (C) Bird (D) Fish
6. Commands like "Move" or "Say" are represented by colored _____.
   (A) Blocks (B) Lines (C) Circles (D) Points
7. You can find the "When Clicked" command in the _____ palette.
   (A) Motion (B) Events (C) Sound (D) Sensing

Model 2

I. True (T) or False (F): [8 Questions]

1. The "Scripts Area" is the workspace for building your code. ( )
2. You can turn your ideas into interactive games using Scratch. ( )
3. "Move 10 steps" is found in the Sound category. ( )
4. Tynker only teaches block programming and nothing else. ( )
5. You can download Scratch to work on it without the internet. ( )
6. The Green Flag is used to start the execution of your script. ( )
7. In Scratch, you have to type complex codes and symbols by hand. ( )
8. Every colored block in Scratch represents a specific instruction. ( )

II. Complete the following: [7 Questions]

1. _____ is the process of snapping blocks together like building pieces. (A) Drawing (B) Assembling (C) Deleting (D) Printing
2. The area that contains all the command categories is the _____. (A) Stage (B) Blocks Palette (C) Sprite List (D) Menu Bar
3. To start learning coding with Python later, you might use _____. (A) Tynker (B) Calculator (C) Notepad (D) Paint
4. The cat on the Scratch screen is called a _____. (A) Script (B) Sprite (C) Block (D) Stage
5. To see the results of your work, you look at the _____. (A) Scripts Area (B) Stage (C) Keyboard (D) Mouse
6. Scratch is an example of _____ programming. (A) Text-based (B) Block-based (C) Silent (D) Paper
7. If you need to make the cat talk, you use the _____ blocks. (A) Motion (B) Looks (C) Sensing (D) Control

Model 3

I. True (T) or False (F): [8 Questions]

1. Blockly allows users to solve puzzles by dragging blocks. ( )
2. The "Blocks Palette" is where the Sprite moves and interacts. ( )
3. Scratch allows kids to create their own interactive stories. ( )
4. You need to be a professional engineer to use Scratch. ( )
5. "Events" blocks are used to determine when a script starts. ( )
6. The Sprite's instructions are built in the "Scripts Area." ( )
7. Tynker and Scratch both use a similar block interface. ( )
8. You cannot change the number of steps in a "Move" block. ( )

II. Complete the following: [7 Questions]

1. To run your program in Scratch, you click the _____.
   (A) Red Button (B) Green Flag (C) Space Key (D) Mouse
2. Scratch and Tynker are tools for teaching kids _____.
   (A) Cooking (B) Programming (C) Swimming (D) History
3. A character like a cat or a ball in Scratch is known as a _____.
   (A) Goal (B) Sprite (C) Block (D) Background
4. To find the "Move 10 steps" block, look in the _____ category.
   (A) Events (B) Motion (C) Looks (D) Sound
5. The _____ is the large white area where code blocks are snapped. (A) Scripts Area (B) Stage (C) Blocks Palette (D) Toolbar
6. Programming in Scratch is easy because it uses _____ instead of typing. (A) Pens (B) Visual Blocks (C) Voice (D) Videos
7. When you connect blocks together, you are creating a _____.
   (A) Photo (B) Script (C) Song (D) Folder

Lesson 6: Graphic Arts – Creating and Editing Digital Images

Graphic Arts is the process of creating and modifying digital images and drawings using computer programs. It relies on drawing and coloring tools available in specialized software.

🖌️ *Our Graphic Design Tools:*

1. Microsoft Paint:
    - A common program for creating drawings and editing photos.
    - How to open it: Start Menu -> Accessories -> Paint. (Or search for "Paint" in Windows 10/11).
    - Features: Menu bar and Toolbox, which contains all the tools needed for drawing and coloring.
2. Microsoft Word:

- Not just for writing! It provides graphic tools to design elements like:
    - Diagrams.
    - 3D Models.
        - Found under the "Insert" tab in the menu bar.

✂️ *Important Image Edits in Paint:*

1. Cropping (Crop): Selecting a specific part of an image to keep and removing the rest.
2. Adding Text: Use the Text tool to create a space and type directly onto the image.
3. Color and Size Changes:
    - Use the Fill tool to change colors.
    - Use tools in the toolbox to resize or rotate the image.

Model 1

I. True (T) or False (F): [8 Questions]

1. Graphic arts involve creating and modifying digital images. ( )
2. Microsoft Word does not have any tools for graphic design. ( )
3. The "Crop" tool is used to remove unwanted parts of an image. ( )
4. You can find 3D models under the "Insert" tab in Microsoft Word. ( )
5. Microsoft Paint is only available on very old computers. ( )
6. The "Fill" tool is used to add colors to shapes in Paint. ( )
7. To open Paint in Windows 11, you can type "Paint" in the search box. ( )
8. You cannot add text to images using Microsoft Paint. ( )

II. Complete the following: [7 Questions]

1. The _____ contains all the tools you need for drawing and coloring in Paint. (A) Taskbar (B) Toolbox (C) Scroll bar (D) Desktop
2. To keep only a specific part of a photo, use the _____ tool. (A) Rotate (B) Paint (C) Crop (D) Save
3. In Microsoft Word, you can insert 3D models from the _____ tab. (A) Home (B) Layout (C) Insert (D) View
4. To add words to your drawing, select the _____ tool. (A) Brush (B) Eraser (C) Text (D) Pencil
5. Graphic arts depend on software to _____ images. (A) Modify (B) Delete (C) Hide (D) Forget
6. Microsoft _____ is a common program used to create digital drawings. (A) PowerPoint (B) Paint (C) Excel (D) Outlook
7. You can find the Paint program inside the _____ folder in older Windows versions. (A) Games (B) Accessories (C) Music (D) Videos

Model 2

I. True (T) or False (F): [8 Questions]

1. You can resize an image using tools in the Microsoft Paint toolbox. ( )
2. In Paint, the Text tool allows you to create a white space for typing. ( )
3. Diagrams are one of the graphic elements available in Microsoft Word. ( )
4. To open Paint, you must go to the "Insert" menu in the Start list. ( )
5. Cropping an image increases its original total size. ( )
6. The Fill tool allows you to change the color of a specific area. ( )
7. Graphic arts can only be done using a physical pen and paper. ( )
8. Searching for "Paint" in the Start menu is a fast way to open it. ( )

II. Complete the following: [7 Questions]

1. When you want to change the color of a shape, use the _____ tool.
   (A) Fill (B) Crop (C) Search (D) Zoom
2. Microsoft Word allows you to design _____ to organize information. (A) Games (B) Diagrams (C) Viruses (D) Emails
3. To change the orientation of an image, use the _____ or resize tools. (A) Delete (B) Rotate (C) Print (D) Text
4. Drawing and coloring digitally is a part of _____ arts.
   (A) Manual (B) Graphic (C) Audio (D) Written
5. You can use the _____ tool to select a piece of the image to use.
   (A) Crop (B) Pen (C) Fill (D) Eraser
6. The _____ bar in Paint contains different menus for the user.
   (A) Title (B) Menu (C) Status (D) Side
7. In Microsoft Word, 3D models are useful for _____ presentations.
   (A) Deleting (B) Enhancing (C) Stopping (D) Hiding

Model 3

I. True (T) or False (F): [8 Questions]

1. You can change the size and direction of an image in Paint. ( )
2. To use the Fill tool, you must first choose a color. ( )
3. Microsoft Word is only used for typing text and nothing else. ( )
4. Paint is found in the "Accessories" folder on some Windows versions. ( )
5. Graphic design requires using digital drawing and coloring tools. ( )
6. Adding text to an image makes it harder to understand the message. ( )
7. 3D models can be added to documents to make them more creative. ( )
8. You need a special "Crop" tool to change the colors of a drawing. ( )

II. Complete the following: [7 Questions]

1. The process of removing edges from a photo is called _____.
   (A) Printing (B) Cropping (C) Scanning (D) Painting
2. You can access graphic tools in Word by clicking the _____ tab.
   (A) File (B) Insert (C) Page (D) Help
3. _____ is a software used to create digital drawings.
   (A) Paint (B) Chrome (C) Calculator (D) Media Player
4. To add a title to a digital drawing, use the _____ tool.
   (A) Shape (B) Text (C) Color (D) Zoom
5. Modern versions of Windows allow you to search for Paint in the __.
   (A) Search box (B) Recycle Bin (C) My Documents (D) Browser
6. The toolbox in Paint provides tools for _____.
   (A) Writing emails (B) Drawing and coloring
   (C) Playing music (D) Fixing hardware
7. You can create a _____ to show relationships between ideas in Word. (A) Diagram (B) Song (C) Movie (D) Folder

Model 1 (Lessons 5-6 Unit 3)

I. True (T) or False (F):

1. Edmodo is a platform for teachers and students to communicate. ( )
2. The Egyptian Knowledge Bank (EKB) is an unreliable source. ( )
3. Vlaby is used for conducting virtual science experiments. ( )
4. You should start a research project without any prior planning. ( )
5. Interactive Map Maker is a free tool for drawing and mapping. ( )
6. Reliable sources often contain many spelling and grammar errors. ( )
7. Social media sites like Facebook are considered reliable sources. ( )
8. Digital research can include videos, images, and audio files. ( )

II. Complete the following:

1. A _____ help you organize your notes before writing a report.
   (A) Game (B) Outline (C) Printer (D) Mouse
2. You can submit your assignments to your teacher through _____.
   (A) Edmodo (B) Calculator (C) Excel (D) Paint
3. _____ provides diverse articles and videos for Egyptian students.
   (A) Vlaby (B) Facebook (C) EKB (D) WhatsApp
4. Personal opinions and lies are often found in _____ sources.
   (A) Reliable (B) Government (C) Unreliable (D) Scientific
5. To conduct a chemistry experiment safely online, use _____.
   (A) Edmodo (B) Map Maker (C) Vlaby (D) Word
6. The _____ of a report contains the details and findings.
   (A) Introduction (B) Supporting paragraphs (C) Conclusion (D) Title
7. When collecting data, ensure that your digital tools are _____.
   (A) Expensive (B) Reliable (C) New (D) Broken

Model 2 (Lessons 1-2 Unit 4)

I. True (T) or False (F):

1. A hypothesis is a scientific guess to explain a problem. ( )
2. You should test a hypothesis even if it damages your device. ( )
3. Dividing a large problem into small parts makes it easier to solve. ( )
4. PowerPoint is used to design presentation slides. ( )
5. Margins are the empty spaces around the edges of a poster. ( )
6. You should use more than ten colors in a single poster design. ( )
7. Microsoft Publisher is professional software for designing ads. ( )
8. Logical thinking is not required to solve digital problems. ( )

II. Complete the following:

1. The first step in solving a digital problem is building a _____.
   (A) Solution (B) Hypothesis (C) Result (D) Goal
2. It is recommended to leave a margin of _____ cm in your design. (A) 10 (B) 0 (C) 2.5 (D) 5
3. If your hypothesis test fails, you should _____.
   (A) Give up (B) Build a new hypothesis (C) Delete the app (D) Cry
4. To write text and design simple posters, use Microsoft _____.
   (A) Word (B) Excel (C) PowerPoint (D) Paint
5. Complex fonts should be _____ to make a poster easy to read.
   (A) Used (B) Avoided (C) Colored (D) Shared
6. Breaking down a problem is useful when working in a _____.
   (A) Group (B) Solo (C) Secret (D) Dark
7. Images used in a design should be _____ and high quality.
   (A) Blurry (B) Clear (C) Small (D) Hidden

Model 3 (Lessons 3-4 Unit 4)

I. True (T) or False (F):

1. An algorithm is a series of steps to accomplish a task. ( )
2. Computers use algorithms to provide search engine results. ( )
3. Finiteness means the algorithm should never stop. ( )
4. Programming is considered the language of computers. ( )
5. You cannot use programming to create video games. ( )
6. Code.org is a website that helps you learn how to code. ( )
7. An addition algorithm starts by displaying the result. ( )
8. Every step in an algorithm must be clear and precise. ( )

II. Complete the following:

1. Search engines use _____ to find relevant information.
   (A) Algorithms (B) Batteries (C) Pens (D) Paper
2. Writing a program is also known as _____.
   A) Painting (B) Coding (C) Chatting (D) Printing
3. To get accurate search results, you must use precise _____.
   (A) Passwords (B) Keywords (C) Images (D) Dates
4. Programming teaches you how to think _____.
   (A) Randomly (B) Logically (C) Quickly (D) Roughly
5. An algorithm must have at least one _____ as a solution.
   (A) Input (B) Output (C) Problem (D) Error
6. Instructions like "move two steps up" are part of a _____.
   (A) Code (B) Story (C) Song (D) Letter
7. A good algorithm must be _____, meaning steps can be done.
   (A) Impossible (B) Executable (C) Random (D) Hidden

Model 4 (Lessons 5-6 Unit 4)

I. True (T) or False (F):

1. Scratch is a block-based programming language for kids. ( )
2. The "Stage" in Scratch is where the Sprite interacts. ( )
3. Graphic arts only include hand-drawn paper pictures. ( )
4. In Paint, the "Crop" tool is used to cut parts of an image. ( )
5. Tynker is an educational environment for learning coding. ( )
6. You cannot add text to images using Microsoft Paint. ( )
7. 3D models can be inserted into Microsoft Word documents. ( )
8. "Blocks Palette" in Scratch contains the colored commands. ( )

II. Complete the following:

1. The default character in Scratch is called a _____.
   (A) Script (B) Sprite (C) Block (D) Stage
2. To change the color of a shape in Paint, use the _____ tool.
   (A) Fill (B) Crop (C) Text (D) Eraser
3. A group of connected blocks in Scratch is called a _____.
   (A) Sprite (B) Script (C) Palette (D) Flag
4. You can design diagrams in Word from the _____ tab.
   (A) Home (B) Insert (C) File (D) Help
5. _____ is an open-source visual programming language.
   (A) Chrome (B) Blockly (C) Word (D) Excel
6. To add a title to your drawing in Paint, use the _____ tool.
   (A) Brush (B) Text (C) Shape (D) Zoom
7. The workspace where you snap blocks in Scratch is the _____.
   (A) Stage (B) Scripts Area (C) Toolbar (D) Sprite List

Model 5 (Mixed - All Lessons)

I. True (T) or False (F):

1. The Egyptian Knowledge Bank is a reliable digital library. ( )
2. A hypothesis must be safe to test on your device. ( )
3. You should use at least 15 different colors in a poster. ( )
4. Algorithms are used by digital maps to give directions. ( )
5. "When Green Flag Clicked" is a common starting block. ( )
6. Cropping an image means adding new parts to it. ( )
7. Planning research includes choosing a topic and sources. ( )
8. Scratch uses complex text codes instead of blocks. ( )

II. Complete the following:

1. _____ is a platform used for virtual science experiments.
   (A) EKB (B) Vlaby (C) Edmodo (D) Word
2. The empty space around a poster is called the _____.
   (A) Center (B) Margin (C) Border (D) Frame
3. _____ is the language used to communicate with computers.
   (A) Programming (B) English (C) Math (D) Art
4. To find Paint in Windows 10, type it in the _____ box.
   (A) Search (B) Music (C) Game (D) Recycle
5. A research report should end with a clear _____.
   (A) Introduction (B) Conclusion (C) Problem (D) Title
6. Each step in an algorithm must be clear and _____.
   (A) Vague (B) Precise (C) Long (D) Secret
7. In Scratch, the _____ contains the colored command blocks.
   (A) Stage (B) Blocks Palette (C) Scripts Area (D) Mouse

Model 6 (Mixed - All Lessons)

I. True (T) or False (F):

1. Reliable sources are written professionally by experts. ( )
2. Dividing a complex problem makes it harder for a group. ( )
3. Simple fonts make posters easier for everyone to read. ( )
4. An algorithm must produce at least one result (output). ( )
5. Programming is like writing a detailed food recipe. ( )
6. The Sprite is the screen where the final project appears. ( )
7. Microsoft Paint has a toolbox with drawing tools. ( )
8. You should ignore spelling errors in reliable articles. ( )

II. Complete the following:

1. Edmodo is an example of an online learning _____.
   (A) Source (B) Environment (C) Map (D) Problem
2. Testing a hypothesis should be a _____ process.
   (A) Dangerous (B) Safe (C) Random (D) Fast
3. Use Microsoft _____ to create professional brochures.
   (A) Word (B) Publisher (C) Paint (D) Excel
4. Computers follow _____ to perform tasks like searching.
   (A) Algorithms (B) People (C) Luck (D) Dreams
5. You can learn coding on websites like _____.
   (A) Facebook (B) Code.org (C) Amazon (D) Twitter
6. Snap blocks together in the _____ area in Scratch.
   (A) Stage (B) Scripts (C) Sprite (D) Menu
7. Removing unwanted edges from a photo is called _____.
   (A) Cropping (B) Filling (C) Typing (D) Saving

Model 7 (Mixed - All Lessons)

I. True (T) or False (F):

1. Blogs and Wikis are considered unreliable sources. ( )
2. Breaking down a task like "organizing a trip" is helpful. ( )
3. You should use light font on a light background. ( )
4. Search engines provide results relevant to keywords. ( )
5. Logical thinking helps in solving programming mazes. ( )
6. The "Stage" is the library of blocks in Scratch. ( )
7. Paint is a program used to edit digital images. ( )
8. The introduction of a report presents the topic. ( )

II. Complete the following:

1. Reliable sources like EKB are checked for _____.
   (A) Errors (B) Accuracy (C) Size (D) Price
2. A scientific guess is called a _____.
   (A) Solution (B) Hypothesis (C) Fact (D) Problem
3. Use fewer than _____ colors to keep a poster attractive.
   (A) Ten (B) Three (C) Fifty (D) Twelve
4. An algorithm is a sequence of _____ steps.
   (A) Random (B) Organized (C) Hidden (D) Long
5. Scratch is designed specifically to suit _____.
   (A) Children (B) Cars (C) Animals (D) Robots
6. To design a 3D model in Word, go to the _____ tab.
   (A) File (B) Insert (C) Draw (D) Help
7. The _____ tool in Paint allows you to add text.
   (A) Brush (B) Text (C) Eraser (D) Fill

Model 8 (Mixed - All Lessons)

I. True (T) or False (F):

1. Interactive Map Maker is a paid tool for schools. ( )
2. If your hypothesis test fails, you learned something new. ( )
3. PowerPoint is the best tool for writing long novels. ( )
4. Keywords should be chosen carefully for better search. ( )
5. Programming instructions tell the computer what to do. ( )
6. Every character in Scratch is called a "Sprite." ( )
7. You cannot change the size of an image in Paint. ( )
8. Digital research skills include evaluating sources. ( )

II. Complete the following:

1. _____ labs like Vlaby make science learning fun.
   (A) Real (B) Virtual (C) Dark (D) Small
2. Solving a problem step-by-step requires _____ thinking.
   (A) Logical (B) No (C) Fast (D) Random
3. The _____ tab in Word has tools for diagrams.
   (A) Home (B) Insert (C) View (D) Design
4. A set of instructions with an end is called _____.
   (A) Infinite (B) Finite (C) Broken (D) Empty
5. You can create interactive _____ in Scratch.
   (A) Stories (B) Batteries (C) Pens (D) Desks
6. In Paint, the _____ palette contains colors for drawing.
   (A) Color (B) Sound (C) Motion (D) File
7. A report _____ summarizes what you have learned.
   (A) Title (B) Conclusion (C) Intro (D) Margin

Model 9 (Mixed - All Lessons)

I. True (T) or False (F):

1. Edmodo allows students to download lessons and tests. ( )
2. You should never divide a problem into smaller parts. ( )
3. High-quality images make a poster look professional. ( )
4. An algorithm is always disorganized and confusing. ( )
5. Coding is involved in creating animated movies. ( )
6. Blockly users snap blocks together to solve puzzles. ( )
7. The "Fill" tool in Paint is used to cut images. ( )
8. Notes should be taken from reliable sources only. ( )

II. Complete the following:

1. Reliable sources are written by _____.
   (A) Children (B) Experts (C) Strangers (D) Hackers
2. Before writing a report, use an _____ to organize ideas.
   (A) Outline (B) Eraser (C) Image (D) Video
3. Microsoft _____ is used for presentation slides.
   (A) Word (B) PowerPoint (C) Publisher (D) Paint
4. Each step in an algorithm must be _____.
   (A) Secret (B) Clear (C) Wrong (D) Long
5. Tynker supports block-based and _____ languages. (A) Text-based (B) Sign (C) Silent (D) No
6. The character _____ commands in Scratch. (A) Ignores (B) Receives (C) Deletes (D) Blocks
7. To open Paint, click Start then _____ folder. (A) Accessories (B) Games (C) Music (D) Videos

Model 10 (Mixed - All Lessons)

I. True (T) or False (F):

1. Digital maps use databases to provide directions. ( )
2. A hypothesis is a final fact that never changes. ( )
3. Simple posters are easier to read and understand. ( )
4. Algorithms are only used for math problems. ( )
5. Scratch is a tool for learning programming visually. ( )
6. You can find diagrams in the "Home" tab of Word. ( )
7. Cropping helps you focus on a specific part of an image. ( )
8. Reliable sources don't have personal opinions as facts. ( )

II. Complete the following:

1. A _____ is a preliminary explanation of a problem.
   (A) Result (B) Hypothesis (C) Question (D) Tool
2. Leave a _____ around your poster so it’s not crowded.
   (A) Margin (B) Block (C) Photo (D) Text
3. Computers understand the language of _____.
   (A) Programming (B) Music (C) Colors (D) Nature
4. The _____ is where the action happens in Scratch.
   (A) Stage (B) Toolbar (C) Mouse (D) Files
5. Use the _____ tool in Paint to type your name.
   (A) Pencil (B) Text (C) Fill (D) Crop
6. Information from official _____ sites is reliable.
   (A) Government (B) Fake (C) Secret (D) Random
7. Sequential instructions are part of a _____.
   (A) Photo (B) Code (C) Song (D) Folder